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DEVELOPMENT OF THE PATHOLOGY OF INFECTIOUS DISEASES, PREVENTIVE MEASURES

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Abstract: Infectious diseases are diseases that occur as a result of pathogenic microorganisms entering and multiplying in the human body and having a harmful effect. An infectious disease can have a negative effect on any human body. A high level of the human immune system is of great importance to fight against pathogenic microorganism. Vaccinations against 13 types of infectious diseases are carried out in our country based on the National calendar.

Keywords: Infectious disease pathogenesis, ways of transmission, microbes, preventive measures.

INTRODUCTION

A vaccine is a biological drug that increases immunity against a specific disease. Vaccines are made from weakened or disease-causing microorganisms. The agent prompts the body's immune system to recognize, destroy, and "remember" it as foreign, allowing the immune system to more easily identify and destroy any microbes it encounters in the future. Although the vaccine itself is not capable of causing disease, the body's immune system treats it as if it were a virus. International experience has shown that due to the widespread use of vaccinations, common diseases such as poliomyelitis, measles, diphtheria, whooping cough, mumps, tetanus and some types of meningitis are now rare.

MATERIALS AND METHODS

Vaccinated people develop antibodies that neutralize disease-causing viruses or bacteria. They are less likely to get sick and spread germs. Infectious diseases have their own characteristics. They consist of:

1. All infectious diseases can be transmitted from patients or carriers of bacteria to healthy people around them. The possibility of spreading the disease to others depends on the type of the disease and the period of its occurrence.

2. In infectious diseases, each disease is characterized by a certain type of pathogenic microbe. For example, diphtheria is caused by the diphtheria bacillus, measles is caused by the measles virus, cholera is caused by the cholera vibrio, and the cholera vibrio never causes diphtheria, or vice versa) [2].

3. Certain periodicity is observed in the course of infectious diseases. After a pathogenic microbe enters the human body, symptoms of the disease do not appear for a certain period of time. It is called the latent (incubation) period of an infectious disease. The duration of this period varies in different diseases. For example, from a few hours to 2 days in flu, 2-3 weeks in diarrhea, etc. The next period is the period when the symptoms of the disease appear. In it, both general symptoms of the disease and clinical symptoms specific to each disease appear. These symptoms appear initially (prodromal period), develop, reach a peak, and disappear after a certain period of time. Since the symptoms of the disease begin to decrease, the patient begins to feel better. This indicates that the period of recovery (convalescence) has begun. It often ends with a period of recovery. In some cases, the disease may worsen during this period.

In infectious diseases, "complete recovery" refers not only to complete cessation of disease symptoms, but also to bacteriological recovery. Because when the patient is completely free of diseases, the release of pathogenic microbes from his body should also stop. The fact that pathogenic microbes are not found after 2-3 tests in the analysis (smear or swabs) after the patient has been prepared indicates bacteriological recovery. In some diseases, for example, diarrhea or paratyphoid, even after the patient has recovered, pathogenic microbes are released from his body. It is called the last bacterial carrier state from the disease. If this condition lasts up to 3 months, it is considered to be an acute bacterial carrier, and if it lasts more than 3 months, it is a chronic bacterial carrier.

4. After infectious diseases, the patient's body develops a persistent immunity against the germs of this disease. It is an increased immunity, and the protective ability is preserved for a different period of time. For example, the last immunity from influenza reaches 3 years compared to this type of virus. Immunity that appears after measles and diarrhoea, lasts for life, and a person does not suffer from these diseases again. In recent years, as a result of scientific investigations, it has been proved that the immunity formed after infectious diseases is largely dependent on the genetic and phenotypic characteristics of the patient organism.

5. Common infectious diseases can be prevented by vaccination. The goal of vaccinating children against several infectious diseases is to prevent them. These include vaccinations against diphtheria, pertussis, measles, and poliomyelitis [3].

RESULTS AND DISCUSSION

Microbes with disease-causing properties are called pathogenic microbes. When they enter the human body, they often cause disease. The severity of the disease depends largely on the virulence of the microbe. Thus, virulence is a measure of the degree of pathogenicity of a microbe. Usually, a microbe with extremely virulent properties causes a severe disease in a person. The disease is milder when infected with a less virulent microbe. In general, depending on the degree of manifestation of the symptoms of the disease, the types of the infectious disease are distinguished as mild, medium and severe. Infectious diseases sometimes end in death in severe cases [4].

Any pathogenic microbe contains a toxic substance. If the toxin is formed as a result of the microbe's life activity and spreads to the environment, it is called an exotoxin. Gram-positive microbes mainly produce exotoxins. For example, diphtheria bacillus, botulinum bacterium. According to the composition of the exotoxin, it is a protein substance and has the properties of an enzyme. Under its influence, vital systems of a person were damaged due to metabolic disorders.

Toxins released into the environment as a result of the decomposition of the microbial body are called endotoxins. It is naturally included in polysaccharide compounds and is mainly developed by gram-negative microbes. For example, the cholera vibrio, a microbe, contains a powerful endotoxin.

CONCLUSION

In short, vaccination not only reduces the probability of contracting infectious diseases, but also prevents epidemics and pandemics among the population and serves to prolong human life.

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